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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/361,312	07/27/1999	AKIRA EZAWA	103903	5376

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EXAMINER

VILLECCO, JOHN M

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

John Fitzpatrick

M

Office Action Summary

Application No.

09/361,312

Applicant(s)

EZAWA, AKIRA

Examiner

John M. Villecco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-8 is/are rejected.
- 7) ☐ Claim(s) 3,4,9 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "S4" has been used to designate different steps shown in Figures 4, 5, 8, and 9. Similarly, several other steps have been given identical reference numbers to other steps, yet they do not carry out the same step. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

3. The disclosure is objected to because of the following informalities:

- On page 27, line 17, applicant recites the word "completionf". It appears that this is a misspelling and that the applicant meant to use the phrase – completion –.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Fossum (U.S.**

Patent No. 6,486,503).

6. Regarding *claim 1*, Fossum discloses a focal plane array comprised of many imaging cells for capturing an image by way of photoelectric conversion and reads out the charge to form an image signal. Additionally, Fossum discloses the ability to reset the imager during a readout period of the imaging sensor. The ability to reset the imager serves a preparation device for photographing the next image. For without a reset of the imaging device, the next image signal would not be a quality signal. See column 10, lines 5-12.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 2 and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Fossum (U.S. Patent No. 6,486,503) in view of Ohnuki et al. (U.S. Patent No. 4,974,003).

9. Regarding *claim 2*, as mentioned above in the discussion of claim 1, Fossum discloses all of the limitations of the parent claim. However, Fossum fails to disclose any of the claimed mechanisms for preparing the imager for the next frame. Ohnuki, on the other hand, discloses

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that it is well known in the art to prepare a camera for the taking of a subsequent image during a continuous shooting mode in order to maintain a frame speed. Ohnuki discloses that after performing a first photographing operation, photographing preparations are performed in order to prepare the camera for the second photographing operation. The photographing operations include a shutter charging and mirror-down. See column 5, lines 65-68. Additionally, an auto focus is performed during the time until the second photograph is performed. If used in the electronic camera of Fossum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a mirror-down and focus during a readout period so that the camera is placed into condition for taking a second image and would not have to wait for the read out period to end in order to begin the second photograph. This would allow preparing for the second image faster and thus allowing for a quality image taken in a continuous shooting mode.

10. Regarding *claim 5*, as mentioned above in the discussion of claim 1, Fossum discloses all of the limitations of the parent claim. However, Fossum fails to specifically disclose a continuous shooting mode wherein the photographic preparations are performed for the next period during an electronic read period while in the continuous shooting mode. Ohnuki, on the other hand, discloses a continuous shooting mode wherein the photographic preparations, which include a shutter charging and mirror-down (col. 5, lines 65-68), are performed in between successive photographs. Additionally, an auto focus is performed during the time until the second photograph is performed. If used in the electronic camera of Fossum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a mirror-down and focus during a readout period so that the camera is placed into condition for taking a

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second image. This would allow preparing for the second image faster and thus allowing for a quality image taken in a continuous shooting mode.

11. As for *claim 6*, as mentioned above in the discussion of claim 1, Fossum discloses all of the limitations of the parent claim. However, Fossum fails to specifically disclose a drive motor for driving the photographing preparation. Ohnuki, on the other hand, discloses a continuous shooting mode wherein the photographic preparations, which include a shutter charging and mirror-down (col. 5, lines 65-68), are performed in between successive photographs.

Additionally, an auto focus is performed during the time until the second photograph is performed. Furthermore, Ohnuki discloses motor (MTR1), motor (MTR2), and lens motor (LMTR) used to drive the shutter charge, mirror, and focusing lens, respectively. (col. 3, line 48 – col. 4, line 15). If used in the electronic camera of Fossum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a mirror-down and focus during a readout period so that the camera is placed into condition for taking a second image and would not have to wait for the read out period to end in order to begin the second photograph. This would allow preparing for the second image faster and thus allowing for a quality image taken in a continuous shooting mode.

12. With regard to *claim 7*, as mentioned above in the discussion of claim 1, Fossum discloses all of the limitations of the parent claim. However, Fossum fails to specifically disclose a drive motor that drives a plurality of photographing preparations. Ohnuki, on the other hand, discloses a continuous shooting mode wherein the photographic preparations, which include a shutter charging and mirror-down (col. 5, lines 65-68), are performed in between successive photographs. Additionally, an auto focus is performed during the time until the

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second photograph is performed. Furthermore, Ohnuki discloses motor (MTR1), motor (MTR2), and lens motor (LMTR) used to drive the shutter charge, mirror, and focusing lens, respectively. (col. 3, line 48 – col. 4, line 15). The lens motor is used to adjust the focusing lens. The focusing lens is moved a plurality of times in between sequential shots in order to effect the proper focus. See Figure 2b. If used in the electronic camera of Fossum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a mirror-down and focus during a readout period so that the camera is placed into condition for taking a second image and would not have to wait for the read out period to end in order to begin the second photograph. This would allow preparing for the second image faster and thus allowing for a quality image taken in a continuous shooting mode.

13. Regarding *claim 8*, Fossum discloses applying the reset during the readout period. It would have been obvious to one of ordinary skill in the art at the time the invention was made to time the reset of Fossum so that the reset does not occur during an electrical charge read period in order to prevent charge from being discharged when it is supposed to be collecting in the well. Therefore, the charge of the subject image will be collected in the well and not reset.

Allowable Subject Matter

14. Claims 3-4 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding *claim 3*, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest controlling all of a shutter mechanism, mirror

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mechanism, and an aperture mechanism to prepare for a second image during an electrical charge read period.

Regarding *claim 4*, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest controlling all of a focal adjustment device, mirror mechanism, and a photometric device to prepare for a second image during an electrical charge read period.

Regarding *claim 9*, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest that the photographing preparation device performs detection of a completion of a signal electric charge read operation and then begins a second exposure.

As for *claim 10*, the primary reason for indication of allowable subject matter is that the prior art fails to teach or reasonably suggest a time count device that times part of a length of time required for the photographing preparation and then adjusts the operation timing to ensure that the electrical charge read period does not overlap a subject image for the next frame.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-6306 (For either formal or informal communications intended for entry. For informal or draft communications, please label "**PROPOSED**" or "**DRAFT**")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington VA, Sixth Floor (Receptionist).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (703) 305-1460. The examiner can normally be reached on Monday through Thursday from 7:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service desk whose telephone number is (703) 306-0377.



JMV
4/2/03



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